

REMARKS

Applicants have amended claims 1, 29, and 30, and have cancelled claims 41-65 without prejudice. Applicants also have added new claims 66-70. Claims 1-21, 29-40, and 66-70, of which claims 1, 29, and 30 are independent in form, are presented for examination.

Information Disclosure Statement

Applicants filed an Information Disclosure Statement on September 24, 2004, but have not yet received confirmation that the Examiner reviewed the references cited in the Information Disclosure Statement. Applicants have provided a copy of this Information Disclosure Statement with this Amendment, and request that the Examiner provide such confirmation.

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 1-9, 13, 14, 16, 20, 21, 41-46, 50, 51, 53, 57, and 58 under 35 U.S.C. § 102(b) as anticipated by JP 10-284075 (“Maruta”).¹ Applicants have cancelled claims 41-46, 50, 51, 53, 57, and 58. As amended, claims 1-9, 13, 14, 16, 20, and 21 recite a method of preparing nickel oxyhydroxide, the method including combining a nickel hydroxide and a hydroxide salt to form a dry mixture, and exposing the mixture to ozone to form a nickel oxyhydroxide.

But Maruta does not anticipate claims 1-9, 13, 14, 16, 20, and 21, at least because Maruta does not disclose or suggest combining a nickel hydroxide and a hydroxide salt to form a dry mixture. Maruta discloses a method of forming a nickel oxyhydroxide that can be used as a cathode active material in an alkaline battery. (See, e.g., Maruta, ¶0006.) The method includes combining nickel hydroxide with ozone and/or oxygen in an alkaline solution. (See, e.g., id.) For example, the method can include passing a mixed gas including oxygen and ozone through an aqueous sodium hydroxide solution within which nickel hydroxide powder is dispersed. (See

¹ Applicants are submitting an English translation of JP 10-284075 in an Information Disclosure Statement filed concurrently with this Amendment. Applicants refer to this English translation herein as “Maruta”.

id., ¶0010.) Maruta's method clearly does not include forming a dry mixture from nickel hydroxide and a hydroxide salt. Accordingly, Maruta does not anticipate claims 1-9, 13, 14, 16, 20, and 21, and Applicants request that the rejection of these claims be withdrawn.

Claim Rejections – 35 U.S.C. § 102 and § 103

The Examiner has rejected claims 10, 11, 40, 47, and 48 as unpatentable over Maruta under either 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a). Applicants have cancelled claims 47 and 48.

Claims 10, 11, and 40 depend from either claim 1 or claim 41, and thus are not anticipated by Maruta, at least for the reasons provided above. Furthermore, a person of ordinary skill in the art would not have been motivated to modify Maruta to provide the methods recited by claims 10, 11, and 40. Maruta explains that the nickel oxyhydroxide composition formed by his method (described above) can be successfully used for its intended purpose (as a cathode active material in a battery). Maruta claims that his method involves an "improvement of manufacturing conditions", and that it provides a "nickel oxyhydroxide [that] contains no impurities and has a high purity." (Id., ¶0007-0008.) According to Maruta, a battery that includes Maruta's nickel oxyhydroxide can have "excellent discharge capacity and charge-discharge cycle characteristic." (Id., ¶0008.) After reading these advantages of Maruta's methods, a person of ordinary skill in the art would not have been motivated to modify Maruta's methods, let alone to modify Maruta's methods to provide the methods covered by claims 10, 11, and 40. Accordingly, Applicants request that the rejection of claims 10, 11, and 40 be withdrawn.

Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claims 12 and 49 under 35 U.S.C. § 103(a) as unpatentable over Maruta in view of U.S. Patent No. 5,800,947 ("Köhler"). Applicants have cancelled claim 49. Köhler discloses a Ni/Cd or Ni/hydride storage battery that has a cathode including spherical nickel hydroxide particles. (See, e.g., Köhler, Abstract.) The Examiner has asserted that it

would have been obvious to a person of ordinary skill in the art to use Köhler's spherical nickel hydroxide particles in Maruta's method. (See November 10, 2004 Office Action, pages 4-5.) But assuming without conceding that this is correct, the resulting method still would not have included all of the elements of claim because, as explained above, Maruta's method does not include combining a nickel hydroxide and a hydroxide salt to form a dry mixture. Thus, Applicants request that the rejection of claim 12 be withdrawn.

The Examiner has rejected claims 17 and 54 under 35 U.S.C. § 103(a) as unpatentable over Maruta in view of U.S. Patent No. 5,759,718 ("Yao"). Applicants have cancelled claim 54. Yao discloses a cathode that includes cobalt hydroxide. (Yao, col. 4, lines 6-11.) The Examiner has asserted that it would have been obvious to a person of ordinary skill in the art to use Yao's cobalt hydroxide in Maruta's method. (See November 10, 2004 Office Action, page 5.) But assuming without conceding that this is correct, the resulting method still would not have included all of the elements of claim 17 because, as explained above, Maruta's method does not include combining a nickel hydroxide and a hydroxide salt to form a dry mixture. Thus, Applicants request that the rejection of claim 17 be withdrawn.

The Examiner has rejected claims 15, 18, 19, 52, 55, and 56 under 35 U.S.C. § 103(a) as unpatentable over Maruta in view of JP 2001-202956 ("Kodama").² Applicants have cancelled claims 52, 55, and 56. Kodama discloses a battery electrode active material that includes a nickel hydroxide and a second component including one of a list of different metals, such as gold. (See, e.g., Kodama, ¶0007.) In some embodiments, the second component can be in the form of a hydroxide. (See, e.g., id., ¶0022.) The Examiner has asserted that it would have been obvious to a person of ordinary skill in the art to use Kodama's gold hydroxide in Maruta's method. (See November 10, 2004 Office Action, pages 5-6.) But assuming without conceding that this is correct, the resulting method still would not have included all of the elements of claims 15, 18, and 19 because, as explained above, Maruta's method does not include combining a nickel hydroxide and a hydroxide salt to form a dry mixture. Accordingly, Applicants request that the rejection of claims 15, 18, and 19 be reconsidered and withdrawn.

² Applicants are submitting an English translation of JP 2001-202956 in an Information Disclosure Statement filed concurrently with this Amendment. Applicants refer to this English translation herein as "Kodama".

The Examiner has rejected claims 29-37, 39, and 59-65 under 35 U.S.C. § 103(a) as unpatentable over Maruta in view of U.S. Patent No. 6,492,062 ("Wang"). Applicants have cancelled claims 59-65. As amended, claims 29-37 and 39 recite methods comprising combining a nickel hydroxide and a hydroxide salt to form a dry mixture, exposing the mixture to ozone to form a nickel oxyhydroxide, and assembling a cathode including the nickel oxyhydroxide, an anode, a separator, and an electrolyte to form a battery. Wang discloses a battery with an anode, a separator, an electrolyte, and a cathode that can include nickel oxyhydroxide. (Wang, col. 1, lines 34-40; col. 2, lines 53-62.) The Examiner has asserted that it would have been obvious to a person of ordinary skill in the art to use Wang's separator in Maruta's method. (See November 10, 2004 Office Action, pages 6-7.) But assuming without conceding that this is correct, the resulting method still would not have included all of the elements of claims 29-37 and 39 because, as explained above, Maruta's method does not include combining a nickel hydroxide and a hydroxide salt to form a dry mixture. Applicants accordingly request that the rejection of claims 29-37 and 39 be withdrawn.

Applicants believe that claims 1-21, 29-40, and 66-70 are in condition for allowance, which action is requested.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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